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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/660,162	09/12/2000	Mark Robert Sivik	7886	6111

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EXAMINER	
MRUK, BRIAN P	
ART UNIT	PAPER NUMBER
1751	8

DATE MAILED: 02/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N	Applicant(s)	
	09/660,162	SIVIK ET AL.	
	Examiner	Art Unit	
	Brian P Mruk	1751	

-- The MAILING DATE f this communication appears on the cover sheet with the correspondence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 December 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) *42 and 43* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37 and 41* is/are rejected.

7)☒ Claim(s) *38-40* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, Claims 1-41 in Paper No. 7 is acknowledged.

2. This application contains claims 42-43 drawn to an invention nonelected without traverse in Paper No. 7. A complete reply to the final rejection must include cancelation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Objections

3. Claims 12 and 38-40 are objected to because of the following informalities:

In instant claim 12, the group $Ti(O^{i}Pr)_4$ should be amended to recite $Ti(OPr)_4$ (i.e. the superscripted i should be deleted).

In instant claims 38-40, the phrase "wherein in" should be amended to recite "wherein" for grammatical purposes.

Appropriate correction and/or clarification is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 20, 21 and 23 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The heterocycle groups which contain ---A== in instant claim 20 are non-enabling when A is either an oxygen atom or $N(R^8)_1$. Specifically, the valency for the oxygen atom is not satisfied (i.e. an oxygen atom in a ring cannot contain three bonds), and a quaternary nitrogen atom in a heterocycle is not stable.

Claims 21 and 23 are rejected under 35 U.S.C. 112, first paragraph, for being dependent upon claim 20. Appropriate correction is required.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 5, 12, 20, 21, 23 and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. In instant claim 5, the alkyl groups $\mathbf{H_3}(CH_2)_n$ and $\mathbf{H_3}(CH_2)_j$ should be amended to $\mathbf{H}(CH_2)_n$ and $\mathbf{H}(CH_2)_j$, since the carbon atom cannot have a valency of 6. Appropriate correction and/or clarification is required.

9. Claim 12 contains the trademark/trade names "DOWEX 50X8-50", "REILLEX 425" and "AMBERLYST®15". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademarks or trade names cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe products and, accordingly, the identification/description is indefinite.

10. The heterocycle groups which contain ---A== in instant claim 20 are indefinite when A is either an oxygen atom or $N(R^8)_1$. Specifically, the valency for the oxygen atom is not satisfied (i.e. an oxygen atom in a ring cannot contain three bonds), and a quaternary nitrogen atom in a heterocycle is not stable.

Claims 21 and 23 are rejected under 35 U.S.C. 112, second paragraph, for being dependent upon claim 20. Appropriate correction is required.

11. Claim 36 recites the limitation "wherein the mixture produced by step (d)" in line 1. There is insufficient antecedent basis for this limitation in the claim. Specifically, the examiner notes that instant claim 31, from which instant claim 36 depends on, does not

recite that step (d) produces a mixture. The examiner suggests that instant claim 31 should be amended to recite that step (d) forms a mixture after quenching with a base. Appropriate correction and/or clarification is required.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

14. Claims 1-7, 10-14, 16-17, 22, 31-32, 34, 36-37 and 41 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Beyer et al, DE 2,252,186.

Beyer et al, DE 2,252,186, discloses a low foaming surfactant with the formula:

$$R^1\text{-}(OC_2H_4)_n\text{-}(OC_3H_6)_m\text{-}O\text{-}CH(CH_3)\text{-}O\text{-}R^2,$$

wherein R^1 is a C_7-C_{22} alkyl or alkenyl group, or a mono or bicyclic alkaryl group having a C_8-C_{12} alkyl group; R^2 is a C_1-C_{10} alkyl, cyclohexyl, alkylcyclohexyl, or $-(OC_3H_6)_m-(OC_2H_4)_n-R^1$; n is 1-30; and m is 5-50 (see page 2, lines 1-12 and page 11, claim 1), which is made by reacting a vinyl ether of formula III (see page 3, line 5-8) with an alkoxylated alcohol of formula II (see page 3, lines 1-4) in the presence of a catalyst, such as $AlCl_3$ (see page 3, lines 9-11) at a temperature between 0-100 degrees Celsius (see page 3, lines 16-17), followed by quenching the mixture with a base, such as KOH or NaOH (see page 4, lines 21-27), per the requirements of the instant invention. Absent a full translation of Beyer et al, DE 2,252,186, instant claims 1-7, 10-14, 16-17, 22, 31-32, 34, 36-37 and 41 are anticipated by Beyer et al, DE 2,252,186.

In the alternative that the above disclosure is insufficient to anticipate the above listed claims, it would have nonetheless been obvious to the skilled artisan to produce the claimed composition, as the reference teaches each of the limitations of the claimed composition and process steps for making the claimed composition.

15. Claims 1-7, 10-14, 16-17, 22, 31-37 and 41 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wolf et al, WO 95/13260.

Wolf et al, WO 95/13260, discloses a low foaming nonionic surfactant composition having the following formula (I) : $R^1-(OA)_x-(O)-CH(CH_3)-O-R^2$, wherein R^1 is a C_1-C_{30} alkyl group, a C_3-C_{30} alkenyl group, or a C_7-C_{30} aralkyl or alkaryl group; R^2 is a C_1-C_{10} alkyl group; A is a 1,2-alkylene group with 2 to 4 carbon atoms; and X is from

1-50, prepared by mixing a vinyl ether of formula IV with an alcohol alkoxylate of formula III in the presence of a Lewis acid catalyst, per the requirements of the instant invention (see abstract). It is further taught by Wolf et al that the reaction temperature is between 30-80 degrees Celsius (see page 5, lines 9-16), and that the resulting reaction mixture is neutralized with sodium carbonate (see page 10, lines 34-37), per the requirements of the instant invention. Absent a full translation of Wolf et al, WO 95/13260, instant claims 1-7, 10-14, 16-17, 22, 31-37 and 41 are anticipated by Wolf et al, WO 95/13260.

In the alternative that the above disclosure is insufficient to anticipate the above listed claims, it would have nonetheless been obvious to the skilled artisan to produce the claimed composition, as the reference teaches each of the limitations of the claimed composition and process steps for making the claimed composition.

Double Patenting

16. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

17. Claims 1-37 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,506,945. Although the conflicting claims are not identical, they are not patentably distinct from each other because Kluesener et al, U.S. Patent No. 6,506,945, claims a similar process for making an ether-capped poly(oxyalkylated) alcohol by reacting a vinyl ether with an alkoxylated alcohol in the presence of a catalyst, and optionally a solvent, at a temperature of from 0-60 degrees Celsius, followed by quenching the reaction mixture with a base (see claims 1-17 of U.S. Patent No. 6,506,945), per the requirements of instant claims 1-37. Therefore, one of ordinary skill in the art would have been motivated to modify claims 1-17 of U.S. Patent No. 6,506,945 to arrive at claims 1-37 of the instant invention, since an artisan of ordinary skill in the art would have had a reasonable expectation of success to prepare a similar ether-capped poly(oxyalkylated) alcohol claimed in the instant invention with the process claimed in U.S. Patent No. 6,506,945.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Mruk whose telephone number is (703) 305-0728. The examiner can normally be reached on Monday-Thursday from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta, can be reached on (703) 308-4708. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310 (Before Final) and (703) 872-9311 (After Final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

BPM
Brian Mruk
February 19, 2003

Brian P. Mruk
Brian P. Mruk
Patent Examiner
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